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- 1. A host-based method for identifying an area within a color layer of a page that is not to be painted when producing a final output page, the page including a gradient having a color definition in one of a plurality of color planes; the method comprising
  - a. defining a clippath for the gradient;
  - b. converting the clippath to a high level representation;
  - c. adding the high level representation of the converted clippath back to the page and identifying the high level representation as a knockout area that is not to be painted.
- 2. The method of claim 1 wherein the step of defining includes reducing the gradient to one or more simple objects and identifying a set of the simple objects that bound the gradient.
- 3. The method of claim 1 wherein the high level representation is a path object.
- 4. The method of claim 3 wherein the path object is a PDF path object.
- 5. The method of claim 1 wherein the step of converting includes converting the clippath to a PDF path object.
- 6. The method of claim 5 wherein the page is represented in PDF and the step of adding adds the PDF path object identifying the knockout area to the PDF representation of the page.
- 7. A host-based method for identifying an area within a color layer of a page that is not to be painted when producing a final output page; the method comprising:
  - a. identifying an object that is to be overprinted and has a color definition that specifies color data for less than all of the color layers in the page;
  - b. generating a knockout object associated with the identified object; and
  - c. adding the knockout object to the page.

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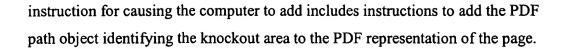
- 8. The method of claim 7 wherein the page is a separated page and the knockout object is added to a location in a marking list for the separated page at a same location as the identified object in a marking list for the page.
- 9. The method of claim 7 wherein the step of appending the knockout object to the page appends the knockout object in a marking list for the page immediately after the identified object.
- 10. The method of claim 7 wherein the step of appending the knockout object to the page appends the knockout object in a marking list for the page immediately after the identified object.
  - 11. A host-based computer implemented method for identifying an area within a color layer of a page that is not to be painted when producing a final output page, the page including a gradient having a color definition in one of a plurality of color planes; the method including instructions for causing a computer to:
    - a. define a clippath for the gradient;
    - b. convert the clippath to a high level representation; and
    - c. add the high level representation of the converted clippath back to the page and identify the high level representation as a knockout area that is not to be painted.
  - 12. The method of claim 11 wherein the high level representation is a path object.
  - 13. The method of claim 12 wherein the path object is a PDF path object.
  - 14. The method of claim 11 wherein the instruction for causing the computer to convert includes instructions to convert the clippath to a PDF path object.
  - 15. The method of claim 14 wherein the page is represented in PDF and the

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- 16. A host-based computer implemented method for identifying an area within a color layer of a page that is not to be painted when producing a final output page; the method including instructions for causing the computer to:
  - a. identify an object that is to be overprinted and has a color definition that specifies color data for less than all of the color layers in the page;
  - b. generate a knockout object associated with the identified object; and
  - c. append the knockout object to the page.
- 17. The method of claim 16 wherein the method further comprises instructions to
  - a. create color separations including generate a separation page for each color plane in the final output for the page; and
  - b. add the knockout object to a location in a marking list for the separated page at a same location as the identified object is located in a marking list for the page.
- 18. The method of claim 16 further comprising instructions to append the knockout object in a marking list for the page immediately after the identified object.
- 19. The method of claim 16 further comprising instructions to append the knockout object in a marking list for the page immediately before the identified object.